

1 **In the Claims**

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3 1. **(Currently Amended)** A flash driver system, comprising:

4 a free sector manager, configured to determine a next free

5 physical sector address on ~~the~~a media and assign the address to a logical sector

6 address of a write request received from a file system;

7 a table, configured to store a map showing the assignment of

8 the physical sector address to the logical sector address; and

9 a flash medium logic, configured to write the data to the next

10 free physical sector indicated by the free sector manager and store the logical

11 sector address directly with the data on the flash memory medium.

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13 2. **(Original)** The flash driver as recited in claim 1, further

14 comprising a flash abstraction logic, configured to scan the sectors of the flash

15 memory medium for the logical sector address and note the physical sector address

16 from which the logical sector address is stored and reestablish the map in the table

17 in the event the table is erased.

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19 3. **(Original)** The flash driver as recited in claim 1, wherein the

20 logical sector address is stored in a spare portion of the flash memory medium.

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22 4. **(Currently Amended)** A flash driver system, comprising:

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1 a free sector manager, configured to ~~determinemaintain~~ maintain a list  
2 of at least one a next free physical sector address available on ~~thea~~ a flash memory  
3 medium;

4 a flash abstraction logic, configured to query the free sector  
5 manager for the next free physical sector address and link the physical sector  
6 address to a logical sector address received from a file system; and

7 a table, configured to store the physical sector address to  
8 logical sector address linking performed by the flash abstraction logic.

9  
10 5. (Original) The flash driver system as recited in claim 4, wherein  
11 the flash abstraction logic is further configured to mark an existing physical sector  
12 as dirty, if a logical sector address received from the file system was previously  
13 linked to the logical sector address in the table.

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15 6. (Original) The flash driver system as recited in claim 4, wherein  
16 the flash abstraction logic is further configured to mark an existing physical sector  
17 as dirty, if a logical sector address received from the file system was previously  
18 linked to the logical sector address in the table, but only after data associated with  
19 the logical sector address is successfully written to a new physical sector address  
20 on the flash memory media.

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22 7. (Original) The flash driver system as recited in claim 4, wherein a  
23 portion of a physical sector is a status bit configured to indicate when a write  
24 operation is in progress.  
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2           8.     **(Original)**   The flash driver system as recited in claim 4, wherein a  
3     portion of physical sector is a status bit configured to indicate when a write  
4     operation has been completed successfully.

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6           9.     **(Currently Amended)**   A memory device comprising:  
7                   a free sector manager to determine a next free physical sector  
8     address on a flash memory medium and to assign the physical sector address to a  
9     logical sector address; ~~and~~  
10                  an assignment map to store data corresponding to the physical  
11     sector address to the logical sector address assignment,  
12                  wherein the next free physical sector accepts data without  
13     requiring to be erased first in direct response to the issuance of a write request  
14     associated with said data; and  
15                  wherein the logical sector address associated with the stored  
16     data is stored at the physical sector address of the flash memory medium assigned  
17     to the logical sector address.

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19          10.    **(Original)**   A memory device as recited in claim 9, wherein the  
20     free sector manager assists in evenly wearing the flash memory medium by not  
21     requiring a same physical sector to be erased repeatedly prior to other available  
22     physical sectors of the flash memory medium.

1           11.   **(Original)**   A memory device as recited in claim 9, wherein a  
2 write request provides the logical sector address.

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4           12.   **(Original)**   A memory device as recited in claim 9, wherein a  
5 write request received from a file system provides the logical sector address.

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7           13.   **(Original)**   A memory device as recited in claim 9, wherein the  
8 assignment map is stored in a table.

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10          14.   **(Original)**   A memory device as recited in claim 9, wherein the  
11 logical sector address is stored in a spare portion of the flash memory medium.

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13          15.   **(Original)**   A memory device as recited in claim 9, wherein the  
14 flash memory medium is a memory medium selected from a group comprising a  
15 NAND flash memory medium and a NOR flash memory medium.

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17          16.   **(Original)**   A memory device as recited in claim 9, further  
18 comprising a flash medium logic to write received data to the next free physical  
19 sector indicated by the free sector manager.

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21          17.   **(Original)**   A memory device as recited in claim 9, further  
22 comprising a flash medium logic to store the logical sector address on the flash  
23 memory medium.  
24  
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1           18.   **(Original)**   A memory device as recited in claim 9, further  
2 comprising a flash abstraction logic to scan one or more sectors of the flash  
3 memory medium for the logical sector address and note the physical sector address  
4 from which the logical sector address is stored and reestablish the assignment map  
5 in the event the assignment map is erased.

6  
7           19.   **(Original)**   A memory device as recited in claim 9, further  
8 comprising a flash abstraction logic to scan one or more blocks of the flash  
9 memory medium for the logical sector address and note the physical sector address  
10 from which the logical sector address is stored and reestablish the assignment map  
11 in the event the assignment map is erased.

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13           20.   **(Currently Amended)**   A method comprising:  
14                           determining a next free physical sector address on a flash  
15 memory medium;  
16                           assigning the physical sector address to a logical sector  
17 address; and  
18                           generating an assignment map of data corresponding to the  
19 physical sector address to the logical sector address assignment,  
20                           wherein the next free physical sector accepts data without  
21 requiring to be erased first-in direct response to the issuance of a write request  
22 associated with said data; and  
23                           wherein the logical sector address is stored at the physical  
24 sector address of the flash memory medium assigned to the logical sector address.  
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2           21.   **(Original)**   A method as recited in claim 20, wherein a write  
3 request provides the logical sector address.  
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5           22.   **(Original)**   A method as recited in claim 20, wherein a write  
6 request from a file system provides the logical sector address.  
7

8           23.   **(Original)**   A method as recited in claim 20, further comprising  
9 evenly wearing the flash memory medium by not requiring a same physical sector  
10 to be erased repeatedly prior to other available physical sectors of the flash  
11 memory medium.  
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13           24.   **(Original)**   A method as recited in claim 20, further comprising  
14 storing the assignment map in a table.  
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16           25.   **(Original)**   A method as recited in claim 20, further comprising  
17 storing the logical sector address in a spare portion of the flash memory medium.  
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19           26.   **(Original)**   A method as recited in claim 20, wherein the flash  
20 memory medium is a memory medium selected from a group comprising a NAND  
21 flash memory medium and a NOR flash memory medium.  
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23           27.   **(Original)**   A method as recited in claim 20, further comprising  
24 writing data to the next free physical sector.  
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2           28.   **(Currently Amended)**   A method as recited in claim 20, further  
3 comprising ~~storing the logical sector~~ maintaining a write pointer indicating the  
4 next free physical sector address on the flash memory medium.

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6           29.   **(Original)**   A method as recited in claim 20, further comprising:  
7               scanning one or more sectors of the flash memory medium for the  
8 logical sector address;  
9               noting the physical sector address from which the logical sector  
10 address is stored; and  
11               reestablishing the assignment map in the event the assignment map  
12 is erased.

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14           30.   **(Original)**   A method as recited in claim 20, further comprising:  
15               scanning one or more blocks of the flash memory medium for the  
16 logical sector address;  
17               noting the physical sector address from which the logical sector  
18 address is stored; and  
19               reestablishing the assignment map in the event the assignment map  
20 is erased.

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22           31.   **(Original)**   One or more computer-readable media comprising  
23 computer-executable instructions that, when executed, perform the method as  
24 recited in claim 20.  
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2           32.   **(Currently Amended)**   An apparatus comprising:

3                       means for determining a next free physical sector address on  
4 a flash memory medium;

5                       means for assigning the physical sector address to a logical  
6 sector address;

7                       means for storing the logical sector address at the physical  
8 sector address of the flash memory medium assigned to the logical sector address;  
9 and

10                      means for generating an assignment map of data  
11 corresponding to the physical sector address to the logical sector address  
12 assignment.

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14           33.   **(Currently Amended)**   An apparatus as recited in claim 32,  
15 wherein the next free physical sector accepts data without requiring to be erased  
16 first in direct response to the issuance of a write request associated with said data.

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18           34.   **(Original)**   An apparatus as recited in claim 32, further comprising  
19 means for storing the assignment map in a table.

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21           35.   **(Currently Amended)**   An apparatus as recited in claim 32,  
22 wherein a means for storing the logical sector address at the physical sector  
23 address of the flash memory medium comprises a further comprising means for  
24 storing the logical sector address in a spare portion of the flash memory medium.  
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2           36.   **(Original)**   An apparatus as recited in claim 32, further comprising  
3 means for writing data to the next free physical sector.

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5           37.   **(Currently Amended)**   An apparatus as recited in claim 32,  
6 further comprising means for ~~storing the logical sector address on the flash~~  
7 ~~memory medium~~ maintaining a write pointer indicating the next free physical  
8 sector address on the flash memory medium.

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10          38.   **(Original)**   An apparatus as recited in claim 32, further comprising  
11 means for reestablishing the assignment map in the event the assignment map is  
12 erased.